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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/443,455 11/19/99 WEGENER

K 852/48374

EXAMINER

IM22/0622

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WASHINGTON DC 20005

EDMONDSON, L

ART UNIT

PAPER NUMBER

1725

DATE MAILED:

06/22/01

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/443,455

Applicant(s)

WEGENER ET AL.

Examiner

Lynne R. Edmondson

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6,7.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 12 is objected to because of the following informalities: A line appears to be missing. The phrase "...transporting the workpieces from to the at least one forming station..." appears to be a typographical error. For examination purposes the phrase is assumed to be similar to the line in claim 13 which reads "...transporting the workpieces from or to the at least one forming station...". Appropriate correction is required.

2. Claims 12 and 13 are objected to because of the following informalities: The phrase "...comprising transporting the workpieces..." in line 3 of claim 12 and line 3 of claim 13 are not structural limitations. For examination purposes it is presumed that the limitation should read "...comprising means for transporting the workpieces".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1-9 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Clark et al. (EPN 0008773 A1).

Clark teaches a method of forming a workpiece in a forming system which has at least one forming station comprising transporting the workpiece between stations and carrying out machining (cutting) with a laser energy feed to the workpiece (page 2 lines 18-22, page 3 lines 6-9 and page 7 lines 20-25) wherein the machining is fixedly arranged on the forming system (page 4 lines 7-17). The system operates at a predetermined cycle (page 10 lines 17-34). Machining may be carried out during transport of the workpiece (page 10 lines 5-16) or while the workpiece is stationary and situated on a depositing element (page 9 lines 5-17). See Clark claims 1 and 4 and figures 1-2.

4. Claims 12 -24 are rejected under 35 U.S.C. 102(b) as being anticipated by Bruns (USPN 5140839).

Bruns teaches a forming system comprising at least one forming station, means for transporting workpieces between stations, a machining station and machining device arranged on the transport device (col 2 lines 50-64). However, the machining elements may also be fixed. The transport device has at least one suction bridge (cross bar with vacuum cups) moveably arranged on a rail with a guiding element and programmable manipulation devices (pivotal arms) attached to the machining elements (col 3 lines 31-56 and col 9 lines 20-32). The transport device has slide blocks (88) mounted to the machining elements for adjustment transversely (vertically) to the transport direction of

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the workpiece (col 4 line 42 – col 5 line 5). The manipulation devices have cross traverses (bars) and stroke elements for vertical adjustments (lift/lower) and are arranged to be moveable perpendicularly to the transport direction. Elements may also move linearly (forward/aft) (col 5 lines 43-67 and col 6 lines 31-51). See also Bruns claims 1-9 and 18-21 and figures 2, 3 and 9a-9c.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al. (EPN 0008773 A1) in view of Brandstetter (USPN 5012665).

Clark teaches a method of forming a workpiece in a forming system which has at least one forming station comprising transporting the workpiece between stations and carrying out machining (cutting) with a laser energy feed to the workpiece (page 2 lines 18-22, page 3 lines 6-9 and page 7 lines 20-25) wherein the machining is fixedly arranged on the forming system (page 4 lines 7-17). The system operates at a predetermined cycle (page 10 lines 17-34). Machining may be carried out during transport of the workpiece (page 10 lines 5-16) or while the workpiece is stationary and situated on a depositing element (page 9 lines 5-17). See Clark claims 1 and 4 and

figures 1-2. However, there is no disclosure of an intermediate depositing device for situating the workpiece.

Brandstetter teaches a method of forming a workpiece which is transported between stations and situated on intermediate depositing devices between stations (col 3 lines 53-63 and col 4 line 56 – col 5 line 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ an intermediate workpiece depositing device for simple control of workpiece movement (Clark, page 8 lines 9-12 and thereby facilitate material handling for high speed, highly accurate machining (Clark, page 2 lines 1-8).

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (USPN 5140839) in view of Morita et al. (USPN 4814576).

Bruns teaches a forming system comprising at least one forming station, means for transporting workpieces between stations, a machining station and machining device arranged on the transport device (col 2 lines 50-64). Machining elements are provided. The transport device has at least one suction bridge (cross bar with vacuum cups) moveably arranged on a rail with a guiding element and programmable manipulation devices (pivotal arms) attached to the machining elements (col 3 lines 31-56 and col 9 lines 20-32). The transport device has slide blocks (88) mounted to the machining elements for adjustment transversely (vertically) to the transport direction of the workpiece (col 4 line 42 – col 5 line 5). The manipulation devices have cross traverses (bars) and stroke elements for vertical adjustments (lift/lower) and are arranged to be

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moveable perpendicularly to the transport direction. Elements may also move linearly (forward/aft) (col 5 lines 43-67 and col 6 lines 31-51). See also Bruns claims 1-9 and 18-21.

Morita teaches a system comprising at least one laser machining element (col 1 lines 6-7) for forming workpieces with at least one forming station (43) and at least one machining station (44) wherein workpieces are transported between stations (col 1 line 54 – col 2 line 9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ laser machining elements as tools for a high speed, controlled operation (Bruns, col 3 lines 26-30).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hofele et al. (USPN 5842370), Nashiki (USPN 5359872), Yoshiaki (USPN 5500507), Vanderzee et al. (USPN 5782129) and Klingel (USPN 4698480).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne R. Edmondson whose telephone number is 703-306-5699.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3599 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

LRE
June 13, 2001


TOM DUNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700